

Warm-up

Distribute to solve

$$2x(x - 5) = 2x^2 - 15x + 85$$

$$\begin{array}{r} \cancel{2x^2} - 10x = \cancel{2x^2} - 15x + 85 \\ \hline -10x = -15x + 85 \\ +15x \quad +15x \\ \hline 5x = 85 \\ \frac{5x}{5} = \frac{85}{5} \quad \boxed{x = 17} \end{array}$$

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10-2 Multiply and Factor

GCF--> Greatest Common Factor

$$6x^2 \quad 18x^5$$

$$\begin{array}{c} \vee \\ 6x^2 \end{array}$$

$$\begin{array}{r} 14x^2 \quad 49x^{17} \\ \hline \text{GCF} \\ 7x^2 \end{array}$$

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ex1

$$-2x(3x - 5)$$

$$-6x^2 + 10x$$

ex2

$$6x(-4x^2 - 5x + 9) = -24x^3 - 30x^2 + 54x$$

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Now do the reverse...

ex 3

$$2x^3 - 8x^2 + 6x$$

$$2x(x^2 - 4x + 3)$$

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ex4

$$-6x^3 + 9x^2 + 36x - 12$$

$$3(-2x^3 + 3x^2 + 12x - 4)$$

ex 5

$$18x^3 + 36x =$$

$$9x(2x^2 + 4)$$
$$9x(2)(x^2 + 2)$$
$$\boxed{18x(x^2 + 2)}$$

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exit pass

#1

$$5x(6x - 15)$$

#2

$$8x^3 - 4x^2 + 32x$$

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HW

**pg 473 (10-32evens,
36-46evens)**